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APPLICANT:

TOYOBO CO LTD;

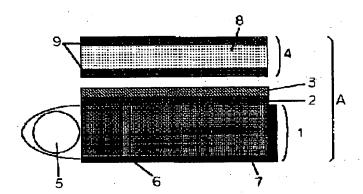
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TITLE

LIQUID CRYSTAL DISPLAY DEVICE



ABSTRACT :

PROBLEM TO BE SOLVED: To improve the use efficiency of the light emitted from a light source device and to provide a low-cost liquid crystal display device.

SOLUTION: The device consists of a light source device 1 having at least a light source 5, reflection layer 6 and light transmission layer 7, a polarizing separator 2 and a polarized light rotator 3 and a liquid crystal panel 4 having a liquid crystal layer 8 and polarizing layers 9 applied on the outside of the liquid crystal layer 8 successively laminated on the light-emitting face of the light source device 1. The polarized light separator 2 consists of a polarizing film having a cholesteric liquid crystal layer, and the polarizing rotator 3 consists of a uniaxially anisotropic polyester film having the double refraction(Re) expressed by the following formula and ≤10% max. strain in the orientation main axis. The formula is  $\lambda \times (n-0.5)/4 \le Re \le \lambda \times (n+0.5)/4$ , wherein,  $\lambda$  is the wavelength and (n) is an odd number in positive integers.

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